ICEMA

Inland Counties Emergency Medical Agency

SERVING INYO, MONO, AND SAN BERNARDINO COUNTIES

Spring 2010
Quarterly Newsletter

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Medical Director Update

Reza Vaezazizi, M.D.

EMT Regulation Changes effective July 1, 2010:

The California Emergency Medical Services Authority (EMSA) will implement significant changes in EMT regulations effective July 1, 2010. ICEMA recently sent out a memorandum outlining two of the new regulations which will have implications for most certifying individuals.

Local EMS Agencies (LEMSA's) and other certifying entities will be required to maintain a new Central Registry. The public will have access to obtaining certification information including whether the certification is active and in good standing. The cost of this registry is being passed on to certifying EMTs. EMSA will assess a $75 certification fee for every initial application and a $37 fee for recertification. LEMSA's and other certifying entities will collect the funds on behalf of EMSA at the time of application. The EMSA fee is in addition to the ICEMA certification/recertification fee, which is currently $32.

All EMTs must have a California Department of Justice (DOJ) background investigation with Subsequent Arrest Notifications (LiveScan) with state and federal Criminal Offender Record Information (CORI) on file with the certifying entity or their EMS employer. The cost for this is currently $36 for the DOJ background check and $18 for the FBI CORI background check. The following scenarios have been developed to assist you through this transition:

1. If a background check (LiveScan) was completed for ICEMA or another certifying entity prior to July 1, 2010, you will be "grandfathered" into the new Central Registry. When the EMT applies for recertification, ICEMA will collect a $37 EMSA recertification fee and the ICEMA recertification fee, which is currently $32, for a total cost of $69.

2. If a background check (LiveScan) was completed for the purposes of employment and that employer is an ambulance service permitted by the California Highway Patrol or a public safety agency that employs firefighters, lifeguards or peace officers, the EMT **may** also be "grandfathered" into the registry, provided the employer submits written documentation to ICEMA confirming:

    a. Employer conducted a previous State level CORI on the EMT prior to July 1, 2010.
    b. Employer is actively receiving subsequent arrest notification reports from the California DOJ prior to July 1, 2010, on the EMT.

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3. Nothing in the CORI search precluded the applicant from obtaining EMT certification as outlined in Division 9, Title 22, Chapter 6, Section 100214.3 "Denial or Revocation of a Certificate," of the California Health and Safety Code:

    a. Has committed any sexually related offense specified under Section 290 of the Penal Code.
    b. Has been convicted of murder, attempted murder, or murder for hire.
    c. Has been convicted of two (2) or more felonies.
    d. Is on parole or probation for any felony.
    e. Has been convicted and released from incarceration for said offense during the preceding fifteen (15) years for the crime of manslaughter or involuntary manslaughter.
    f. Has been convicted and released from incarceration for said offense during the preceding ten (10) years for any offense punishable as a felony.
    g. Has been convicted of two (2) or more misdemeanors within the preceding five (5) years for any offense relating to the use, sale, possession, or transportation of narcotics or addictive or dangerous drugs.
    h. Has been convicted of two (2) or more misdemeanors within the preceding five (5) years for any offence relating to force, threat, violence, or intimidation.
    i. Has been convicted within the preceding five (5) years of any theft related misdemeanor.

If you do not meet either (#1 and #2) of the requirements noted on page 1, it is recommended that you complete the LiveScan process as soon as possible to avoid fees which go into effect July 1, 2010. Livescans processed by ICEMA prior to June 30, 2010 will be submitted to the Central Registry. Approximate LiveScan cost is:

- $36 for DOJ background check fee
- $15 fingerprint fee (varies)

At the time of recertification, submit application and the following fees to ICEMA:

- $37 for EMSA recertification fee
- $32 for ICEMA recertification fee
- Total cost for LiveScan and recertification is approximately $120

After July 1, 2010, if you have not completed the LiveScan process or are unable to provide documentation of completion, you will be required to complete it prior to recertification. You will be required to have DOJ and FBI background checks conducted by the certifying entity which must include primary notification to the EMT certifying entity and secondary notification to the EMS Authority (EMSA). Cost for this is estimated at:

$75 for EMSA initial certification fee
$36 for DOJ background check fee
$18 for FBI background check fee
$15 fingerprint fee (varies)
$32 for ICEMA certification fee
$176 total estimated cost

NOTE: ICEMA does not accept personal checks.

The ICEMA LiveScan application and instructions are available on the ICEMA website at: http://www.sbcounty.gov/icema/cert/Livescan/livescan.htm.

Live Scan locations are available at: http://ag.ca.gov/fingerprints/publications/contact.php.

Announcement

ICEMA RECRUITMENT

By: Staff

ICEMA is currently recruiting for the following position:

- **Emergency Medical Services (EMS) Nurse** - EMS nurses plan, coordinate, and implement the training/certification, system monitoring and evaluation and/or quality assurance components of the County Emergency Medical Services System.

If you or anyone you know is interested in applying for any of these positions, please contact Denice Wicker-Stiles, Assistant Administrator, at (909) 388-5831.

Hospital Preparedness Program

H1N1: ARE WE DONE YET?

By: Jerry Nevarez, R.N., M.S.N

This article was published in the 2010 1st Quarter Edition of CA Association for Healthcare Quality.

The 2009 H1N1 Pandemic has been taxing in many ways; Emergency Departments experienced a large surge in patients in the spring of 2009, Public Health and other governmental agencies had to revise their planning efforts from an Avian Flu scenario to a Swine Flu scenario, and the flu never left. Most pandemics have "taken the summer off", but not H1N1, it hung on and continues to the present. As of December 26, 2009, all subtyped influenza viruses reported to the Centers for Disease Control (CDC) were 2009 influenza A - H1N1 (CDC - Flu View, Week 51, 2009 – 2010 Flu Season). Is the pandemic over as some believe or have we only seen the beginning? In this article we will discuss how the pandemic developed, our response to date and what we are doing to prepare for what many believe may still be the worst to come.

What Happened?

On November 19, 2009, Maxwell Ohikhuare, M.D., Health Officer for San Bernardino County, gave a presentation to the County's Emergency Medical Care Committee (EMCC) in which he summarized the development of the pandemic. The following is a summary of that presentation.

> *"H1N1 is a new influenza virus, what is termed a "novel" virus. This virus is known as a "quadruple reassortant" virus: 2 genes from flu viruses that normally circulate in pigs in Europe and Asia; bird (avian) influenza genes; and human influenza genes. It was first detected in humans in Mexico in March, 2009. In early April, H1N1 hit the mainstream media and was dubbed the "Swine Flu."*
>
> *"On April 26, 2009, the U.S Government declared 2009 H1N1 a Public Health Emergency. The first confirmed case in San Bernardino County was a United States (U.S.) Marine stationed at the Twenty-Nine Palms Marine Corps Base in the eastern portion of the County. An entire platoon of Marines was restricted to their barracks. The naval hospital on the base obtained the swabs and per military protocol, forwarded the specimens to the naval hospital in San Diego which in turn forwarded the specimens to the Centers for Disease Control (CDC). The County Department of Public Health was notified by the Twenty-Nine Palms Naval Hospital as a result of the relationship built over the last two – three years. On April 29, 2009, the County of San Bernardino issued a County Emergency Proclamation."*

The U.S. Military is not required to follow the same reporting protocols as civilian agencies. The San Bernardino County Department of Public Health collects and processes specimens from local hospitals, labs and other healthcare facilities for reportable diseases such as Influenza. San Bernardino County is fortunate that it has a Level B Public Health lab which serves a wide system of sentinel labs located in several counties within Southern California.

The World Health Organization (WHO) raised the Pandemic Alert to Phase 6 on June 11, 2009. This meant that H1N1 had gone through Phase 5 which is defined as, "The same identified virus has caused sustained community level outbreaks in two or more countries in one WHO region". Phase 6 means that, "In addition to the criteria defined in Phase 5, the same virus has caused sustained community level outbreaks in at least one other country in another WHO region" (WHO, 2009). In other words, H1N1 has spread to every continent in the world except Antarctica.

On October 23rd, President Obama declared 2009 H1N1 a National Emergency. This allowed the federal and state government access to national, state and regional stockpiles and resources. On November 17th, the County of San Bernardino declared a Local Emergency related to 2009 H1N1.

What is the Impact?

What does this really mean to us in the U.S.? According to the CDC, as of November 14th, more than 47 million people in the U.S. (about 15% of the population) have been infected, more than 9,800 have died and 213,000 persons have been hospitalized. Richard Johnson, M.D., the Public Health Officer for Mono and Inyo Counties, part of the Inland Counties Emergency Medical Agency's (ICEMA) Region, translates

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these numbers for California as; ". . .approximately 4.3 million cases, with 7,546 hospitalizations, and 397 deaths." In the December 16, 2009, issue of the Mono County, *Public Health Mono-Gram,* Dr. Rick Johnson states,

> *"But you may say that the number of deaths is far less than the often quoted 36,000 that die each year from the seasonal influenza. Two comments to give perspective:*
> *Only about 9,000 of those deaths are due directly to influenza or pneumonia. The rest are among persons who have influenza, and die of events like heart attacks or stroke. Think of someone who has a heart attack while shoveling snow, and his death is labeled 'storm-related'.*
> *More than 90% of the estimated seasonal influenza deaths are in the elderly, while only 13% of deaths with the 2009 H1N1 influenza have been in those over 65 years of age. The death of an 87 year old person with advanced Alzheimer's disease is just as tragic as the death of a 22 year old otherwise healthy pregnant woman, but we can agree that they are not the same in terms of years of potential life lost. The current pandemic to date dwarfs seasonal influenza in this important measure."*

Michael T. Osterholm, PhD, MPH-Director of the Center for Infectious Disease Research & Policy (CIDRAP) writes in his December 14, 2009, "*Osterholm* Briefing" column that there are significant differences between H1N1 and seasonal influenza.

Of the estimated 9,820 deaths:

- *1,090 (11%) have occurred in* ***children 0-17 years of age***
- *7,450 (76%) in* ***people 18-64 years of age***
- *1,280 (13%) in* ***people over 65 years of age***

The age distribution differs considerably from what we see with seasonal influenza.

Two other important data were notable in the CDC's H1N1 update last week. To date, the pandemic has caused:

- ***More cases than seasonal influenza.*** *To date, we know of an estimated 47 million cases of novel H1N1. That's already 15 million more than the estimated 31 million cases that occur during an average seasonal influenza year.*
- ***More hospitalizations than seasonal influenza.*** *An estimated 213,000 hospitalizations to date have been related to H1N1 illness. That number exceeds by 13,000 the estimated average seasonal influenza year of 200,000 hospitalizations.*

As I've noted before, we're still a long way from being done with this pandemic; a third wave during the traditional winter flu months is still a possibility. Also, as I've noted in previous columns, **the impact of these cases on the healthcare system has been dramatic.**

> *"During the Southern Hemisphere's recent winter influenza season (June – August), Australia and New Zealand experienced a 1,500% increase in admissions to their intensive care units (ICUs) compared with a regular flu season. Many of the severely ill cases of H1N1 infection among the younger population require intensive care that is rarely needed among the elderly with seasonal influenza. (CIDRAP Business Source, University of Minnesota Academic Health Center, December 14, 2009)."*

How do all of these statistics affect us, individually? If you are like most people, your eyes glaze over when epidemiologists and other experts rattle off these mind boggling numbers. Our perspective really depends on whether or not we or someone we know was infected and became seriously ill or even died from H1N1.

What Are We Doing to Prepare?

If Drs. Johnson, Ohikhuare, Osterholm and others are correct in their predictions that this pandemic is far from over, and that we may experience an additional wave(s) of increased rates of infection, what should we be doing to mitigate the effects of the H1N1 influenza virus as well as the seasonal influenza?

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MULTIPLE AGENCIES "WORK SEAMLESSLY" IN PROVIDING MEDICAL CARE

By: Fred Hawkins, CEO, Liberty Ambulance

The highways passing through Kramer Junction are well known for the high speed crashes that can occur. Cars and trucks racing to and from the Sierras, Los Angeles, Las Vegas and Central California pack Highway 58 and Highway 395 on most weekends and holidays. Friday January 15th, was no exception. With new snow in the Sierras, traffic was heavy on Highway 395. The area is very rural with only a couple of gas stations and a restaurant nearby. Emergency medical resources for that area originate from Barstow, Boron, Randsburg, Ridgecrest and the rural areas of San Bernardino County.

At approximately 8:10 p.m. on Friday, January 15th, the inevitable happened. A Honda traveling southbound on Highway 395 collided head on with a van traveling northbound. The solo occupant of one vehicle was killed instantly. The other vehicle had three occupants, and they all were critical and classified as "Red Tags" by EMS personnel. Multiple 9-1-1 calls were made by witnesses with varied locations. Highway 395 is a long stretch of highway with few major landmarks. Units from San Bernardino County Fire Department, Liberty Ambulance, Desert Ambulance and Kern County Fire Department were dispatched to the scene. Original scene locations reported by callers varied by as much as 15 miles.

The remote location and seriousness of the injuries challenged EMS personnel. ALS teams from all providers worked seamlessly to treat the injured and coordinate evacuation to several trauma centers. In a short period of time, a patient had bilateral thorasentisis, one patient intubated, and all patients c-spined and stabilized for transport.

The main factor in the success of this event was the training and understanding of incident command by all agencies and a cooperative attitude and focus. The Battalion Chief from SBCOFD took early command and utilized all personnel and resources as a single operational group.

With hundreds of miles of county borders, multi-jurisdictional responses are common. In the northern areas of the ICEMA region, Liberty Ambulance provides ALS services as a resource to San Bernardino and Inyo Counties and routinely works with SBCOFD, Olancha Fire Department and the National Park Service.

Trauma

CONCUSSION AND THE PEDIATRIC PATIENT

By: Jennifer Dearman, R.N.

The Winter Olympics have provided an exciting seventeen days of entertainment that showcased extreme sports, and for some athletes, extreme injuries. Southern California provides a great backdrop for year-round athletic endeavors and for those of us in EMS, opportunities to respond to year-round head injuries!

Concussion is a common and much under-rated head injury. This is particularly true in the pediatric/adolescent populations. In the 2010 Olympic competition alone, athletes competing in the Luge, Hockey, Half-Pipe, Alpine Skiing and aerial events were forced to withdraw from competing as a result of sustaining concussions. Unfortunately, at the local community level, our coaches, parents and even health care providers are not always familiar with concussion symptoms and recovery implications. They are, therefore, less likely to support rest and recovery or recognize the risks associated with multiple concussions. Adolescent athletes are particularly susceptible to re-injury as they are not likely to be honest in reporting symptoms or history of previous injuries.

As a provider in the field, there are some key points to consider when responding to an adolescent with a reported head injury:

1. Only 20% of concussions will have a history of loss of consciousness! It may also result from deceleration injuries and whiplash and not necessarily direct trauma. Most will have a Glasgow Coma Scale of fifteen.

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According to the CDC and other experts, about 15% of population has been infected with H1N1 (47 million cases/308 million population). Approximately `5% have been vaccinated, and 15% have prior protection from exposure to a similar virus in the past. That leaves *more than half of the population at risk for infection* during the coming few months. Dr. Osterholm says it best, "***The first and most important step to remember is this: vaccine, vaccine, and vaccine.*** Despite the downturn in cases and reduced media attention to the level of illness in our communities, get everyone you love, know, work with, or spend time with to the vaccine line as soon as possible."

One of the major issues facing everyone in healthcare will be the rationing of scarce resources. This involves ***Politics.*** According to Mason, Leavitt, & Chaffee (as cited in Sullivan & Decker, 2009), "**Politics** is the art of influencing the allocation of scarce materials, which includes money, time, personnel, and materials." While most of us have learned to interpret *politics* in a negative manner, in reality, politics are a necessity, especially as it relates to how we may have to respond if the pandemic continues longer than predicted or if the virus mutates and becomes more virulent. That is one of government's roles, to influence and in some cases, dictate the allocation of scarce resources. This is, in a word – politics.

Margaret McMahon, RN, MN wrote in a guest editorial for the Journal of Emergency Nursing (Nov, 2009) that,

> *"Perhaps the most difficult issue will be the need to ration care and resources, particularly ventilators. It is not simply who gets put on a ventilator, but also who is taken off because their potential for survival is minimal and someone else needs it more."*

The San Bernardino County Hospital Preparedness Program (HPP), which is administered by ICEMA, in collaboration with the Public Health Department's Preparedness and Response Program (PH-PRP) is working with the General Acute Care Hospitals (GACH), their respective cities and towns, specialty hospitals and clinics, the EMS community, long-term care facilities (LTCF), the County Coroner and other healthcare providers to operationalize the County's Surge Bed Capacity Plan to meet the State's estimated 3,000 + surge bed gap within San Bernardino County. This is an intermediate, tiered, hospital-focused step in what is termed *Government Authorized Alternate Care Sites* (GA ACS) in California. GA ACS are ultimately the responsibility of the Public Health Department when the need reaches a point where community centers, gymnasiums and large venues such as stadiums or fairgrounds may need to be opened and operated as Alternate Care Sites (ACS).

The County Surge Bed Capacity Plan provides a conceptual framework (model), under a declared heath emergency, for hospitals to implement hospital specific plans that identify how care will be delivered in worst case scenarios where thirty to forty percent of the workforce may be affected by either becoming ill or having to care for someone who is ill. This plan will be initiated by order of the Public Health Officer in response to the healthcare system reaching a critical "trigger point" at which hospitals may have difficulty meeting increasing demand.

The model includes restricting access to hospital's Emergency Departments by City Public Works and law enforcement, remoting ER triage to provide fast assessment, treatment and discharge. A study by Stanford University Hospital estimates that over 70% of patients presenting to the Drive-thru Triage (nicknamed, "McTriage") could be assessed and released after provision of minor treatment (instructions to get plenty of rest, stay hydrated, take OTC antipyretics for fever, etc.) without admission to the hospital. Additionally, the final station in the drive-thru triage was a Point of Dispensing (POD) where patients received medications or vaccinations.

This planning is being done in an effort to mitigate the effects of a third (or more) wave of H1N1 influenza during the winter influenza season, in the spring or even later in 2010. As Dr. Osterholm states,

> *"Do not write the H1N1 pandemic obituary yet. In fact, the lull after the second Northern Hemisphere wave is our time to regroup. If only a limited third wave occurs, your efforts will still be of great value. If a doozy of a third wave occurs, you will have been prescient in your efforts."*

While it is true that no one knows for sure what will happen next, it is important for us to plan for the worst and hope for the best. Pandemics are similar, but not exactly the same. This pandemic has not been as severe as the 1918-19 (500,000 – 700,000 deaths),

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the 1957-58 (70,000 deaths), or the 1968-69 (34,000 deaths) pandemics comparatively. But again, severity is relative – depending on whether or not one has been affected personally or not. The 1918 Spanish Flu Pandemic is a historical fact and we can learn many lessons from it. The difference is, the 2009-10 H1N1 Pandemic is ours to deal with – personally, and therefore infinitely more important to us today and tomorrow. Remember Yogi Berra's famous line, *"It ain't over till it's over."*

(Concussion and the Pediatric Patient….. continued from page 5)

2. Concussive symptoms may include: headache, inappropriate emotional display i.e. laughing, crying, and depression, repeating questions or observations.
3. Suspect concussions in patients with facial or nasal trauma.
4. Athletes who sustain a concussion should never be allowed to return to the game on the same day.
5. The pediatric brain does not recover as quickly as an adult brain from this type of injury. There is a notable difference in recovery time between the high school-aged vs. college-aged patient.
6. Less traumatic mechanism in a subsequent head injury event can cause more severe concussive symptoms, including death. Therefore the history that the EMS providers obtain is critical in establishing the severity potential for what might appear to be benign on the surface!
7. The true severity of a concussion can only be determined retrospectively after a full recovery!
8. 1.25 million high school athletes:
    a. 62,000 concussions/year in high school sports (Powell, 1999),
    b 53% adolescents report concussion by high school,
    c 36% college population with multiple concussion
9. Don't underestimate the pediatric/adolescent's desire to get back in the game

EPIDEMIOLOGY OF HEAD INJURIES

NCAA DATA (1984-1991)

SPORT	***Head injuries per 1000 Athlete-exposures***	***Concussions per 1000 Athlete-exposures***
Men's Soccer	0.31	0.25
Women's Soccer	0.29	0.24
Football	0.29	0.27
Ice Hockey	0.30	0.25
Field Hockey	0.23	0.20
Wrestling	0.28	0.20

Jennifer recently accepted a position with University of California San Francisco Medical Center. She will be missed, but ICEMA wishes her the best of luck!

Recognition of Achievement

SAN BERNARDINO COUNTY FIRE'S OWN RECEIVES SERVICE ACHIEVEMENT AWARD

By: ICEMA Staff

At the January 2010 EMCC Meeting, the ICEMA Medical Director, Reza Vaezazizi, MD, presented a Service Achievement Award and Educational Achievement Award on behalf of R. Steven Tharratt, MD, Director of EMSA. These awards were proudly issued to John Commander, EMS Training Officer at San Bernardino County Fire Department. John started his 35 year journey in Emergency Services back in the 1970's as an EMT in Los Angeles County. In 1980, he graduated in the 6th paramedic class from Crafton Hills College, and has spent the last 30 years working within EMS in the ICEMA region.

John was presented with the Service Achievement Award for 10 years of service within EMS, and the Educational Achievement Award for earning his Master's Degree.

Congratulations John!

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